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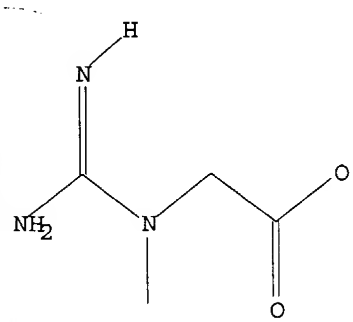

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FULL SEARCH INITIATED 16:32:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    788 TO ITERATE

100.0% PROCESSED      788 ITERATIONS                          258 ANSWERS
SEARCH TIME: 00.00.01

L2          258 SEA SSS FUL L1

=> file caplus
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FILE COVERS 1907 - 4 Sep 2004  VOL 141 ISS 11
FILE LAST UPDATED: 3 Sep 2004  (20040903/ED)

  This file contains CAS Registry Numbers for easy and accurate
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=> s l2 full
L3        12101 L2

=> s l3 and salt
         719686 SALT
L4          316 L3 AND SALT

=> s l4 and dicarboxylic
          59195 DICARBOXYLIC
L5            5 L4 AND DICARBOXYLIC

=> s l3 and creatine
          25595 CREATINE
L6         8587 L3 AND CREATINE

=> s l6 and salts
         561808 SALTS
L7          178 L6 AND SALTS

=> s l7 and dicarboxylic
          59195 DICARBOXYLIC
L8            2 L7 AND DICARBOXYLIC

=> s l7 and dicarboxylic
          59195 DICARBOXYLIC
L9            2 L7 AND DICARBOXYLIC
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=> s l9 and l5
L10           2 L9 AND L5

=> s l9 or l5
L11           5 L9 OR L5

=> d bib abs 1-5 l11
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L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:550807 CAPLUS
DN 141:88865
TI Preparation of **creatine salts** of **dicarboxylic** acids
IN Boldt, Matthias
PA USA
SO U.S. Pat. Appl. Publ., 4 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004133040	A1	20040708	US 2003-740263	20031218
PRAI	US 2002-434245P	P	20021218		

Same Inventor

AB **Creatine salts** of **dicarboxylic** acids [H2NC:NHN(CH3)CH2CO2H]2 A (A = an anion of a **dicarboxylic** acid; e.g., dicreatine maleate) are prepared by the neutralization of the **dicarboxylic** acid with an alc. solution of **creatine** or its monohydrate.

L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:719610 CAPLUS
DN 128:55414
TI Ink-jet printing sheet for transparency preparation
IN Malhotra, Shadi L.; Naik, Kirit N.; MacKinnon, David N.; Jones, Arthur Y.
PA Xerox Corp., USA
SO U.S., 20 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5683793	A	19971104	US 1996-657134	19960603
PRAI	US 1996-657134		19960603		

AB The title printing sheet comprises a supporting substrate, thereover a first coating layer comprised of an ink-absorbing layer and a biocide and a second ink-spreading coating layer comprised of a hydrophilic vinyl binder, a dye mordant, a filler, an optional light fastness-inducing agent, and an ink spot size-increasing agent selected from the group consisting of hydroxy acids, amino acids, and polycarboxyl compds., wherein the first coating layer is in contact with the substrate and is situated between the substrate and the second ink coating layer and the transparency prepared possesses a haze value of from about 0.5 to about 10 and a light fastness value of from about 95 to about 98.

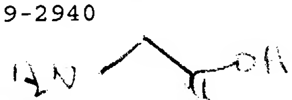
NO

L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:569087 CAPLUS
DN 125:255055
TI Synthesis of disk-like calcium carbonate (part 1) - effect of various organic compounds on the carbonation of the basic calcium carbonate

10740263

AU Sugihara, Hisao; Ono, Ken-ichiro; Adachi, Kentaro; Setoguchi, Yukako; Ishihara, Tatsumi; Takita, Yusaku
CS Tsukumi Fine Ceramics Res. Cent., Tsukumi, 879-24, Japan
SO Journal of the Ceramic Society of Japan (1996), 104(Sept.), 832-836
CODEN: JCSJEW
PB Ceramic Society of Japan
DT Journal
LA Japanese
AB The addition of amines such as ethylenediamine, diethylenetriamine and melamine in the course of carbonation of basic calcium carbonate promoted ~~the formation~~ of a disk-like calcium carbonate which is vaterite and 1-1.5 μm in diameter and 0.1-0.2 μm in thickness. On the other hand, **dicarboxylic** acids, carboxylic chelate compds., and amino acids promoted the formation of cubic or spindle-like calcite. Diethylenetriamine which was adsorbed on the surface of calcium carbonate plays an important role in the formation of disk-like calcium carbonate.

L11 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1959:62312 CAPLUS
DN 53:62312
OREF 53:11251e-i,11252a-f
TI High-energy phosphates. VI. Syntheses of **creatine**- and glycocyaminephosphoric acid
AU Cramer, Friedrich; Vollmar, Arnulf
CS Univ. Heidelberg, Germany
SO Chemische Berichte (1959), 92, 392-8
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA Unavailable



OS CASREACT 53:62312
AB cf. C.A. 53, 244i. Esters of H2NCH2CO2H (I) and MeNHCH2CO2H (II) react with phosphorylcyanamides to yield the corresponding phosphagene esters (III) which upon hydrogenolysis yield 38% phosphocreatine (IV) and 43% phosphoglycocyamine (V). II (20 g.), 38.6 g. PhSO3H (VI), and 111 g. PhCH2OH (VII) heated 4 hrs. at 120-30° with the removal of H2O and VII, the residue cooled, digested with Et2O, and filtered, the residue dried (75 g.), treated again with 100 g. VII and 1.5 g. VI in the same fashion, and the crude product recrystd. (Me2CO-Et2O) yielded 74 g. benzenesulfonate (VIII) of MeNHCH2CO2CH2Ph.HCl (IX.HCl), m. 106-8°. VIII (68 g.) in 150 cc. CHCl3 treated with cooling with 21 g. Et3N in portions, diluted with 850 cc. Et2O, and filtered, the filtrate treated with dry HCl, and the precipitate filtered off and dried over NaOH gave 36 g.
IX.HCl,
m. 178-9° (decomposition) (MeOH-Et2O). H2NC(:NH)CH2CO2H (X) (5.85 g.), 8.7 g. VI, and 25 g. VII heated 4 hrs. and diluted with Et2O gave 13.8 g. benzenesulfonate of H2NC(:NH)CH2CO2CH2Ph, m. 169-70° (EtOH-Et2O or H2O). H2NCH2CO2Et.HCl (0.70 g.) treated with Et3N and then with 1.6 g. (PhO)2P(O)N:C(SMe)NH2 (XI) and 0.65 g. HgO in EtOH at 60° with agitation, filtered, concentrated, dissolved in PhMe, refluxed 10 min., and evaporated in vacuo, the residue dissolved in C6H6 and repptd. with petr. ether gave 1.02 g. (PhO)2P(O)N:C(NH2)NHCH2CO2Et (XII), m. 122-3° (aqueous EtOH and C6H6-cyclohexane). XI (12.8 g.) in 150 cc. EtOH agitated 2 hrs. at 60° with 4.8 g. HgO and 2.4 g. Na2CO3 in 10 cc. H2O, refluxed 2 hrs., kept overnight, filtered, treated with 4.6 g. H2NCH2CO2Me.HCl (XIII), and evaporated in vacuo, the residue refluxed 20 min. with PhMe and evaporated in vacuo, and the crystalline residue digested with
H2O
and dried yielded 11.7 g. Me ester analog of XII, m. 125-6° (C6H6-cyclohexane). (p-O2NC6H4O)2P(O)NNaCN (XIV) (1.0 g.), 30 cc. iso-BuOH, and 0.3 g. XIII ~~refluxed 20 min.~~ and evaporated in vacuo, the oily residue digested with H2O, the oily layer dissolved in hot EtOH, and the solution cooled gave 0.80 g. (p-O2NC6H4O)2P(O)N:C(NH2)NHCH2CO2Me (XV), m.

120-1° (aqueous EtOH). Et ester of II.HCl was converted similarly to (p-O2NC6H4O)2P(O)N:C(NH2)NMeCH2CO2Et, m. 72-3° (Me2CO-petr. ether). (PhO)2P(O)NNaCN (XVI) in EtOH treated with 8.2 g. H2NCH2CO2CH2Ph.HCl (XVII), the EtOH removed, the residue refluxed 20 min. with 40 cc. iso-BuOH, the solvent distilled in vacuo, the residue dissolved in EtOAc, and the solution washed, dried, and evaporated gave 10.2 g. PhCH2 ester analog (XVIII) of XII, m. 103-4° (C6H6-cyclohexane). XIV with 1.1 g. XVII in 40 cc. iso-BuOH yielded 2.1 g. PhCH2 ester analog of XV, m. 140° (aqueous EtOH). XI (6.4 g.), 2.5 g. HgO, 2.3 g. Et3N, 70 cc. EtOH, and 10 cc. H2O shaken 1 hr. at 60°, filtered, treated with fresh HgO, refluxed 0.5 hr., refrigerated, filtered, and evaporated in vacuo, the residue dissolved in 60 cc. iso-BuOH, the solution treated with 4.6 g. IX.HCl in 100 cc. hot iso-BuOH, the mixture refluxed 15 min., and evaporated, and the residue dissolved in C6H6, washed with H2O, and repptd. with cyclohexane gave 6.1 g. (PhO)2P(O)N:C(NH2)BMeCH2CO2CH2Ph (XIX), m. 103° (aqueous MeOH). XI (12.8 g.) in 120 cc. EtOH, 5.0 g. HgO, and 3.6 g. guanidine carbonate in 20 cc. H2O shaken 1 hr. at 60°, refluxed 0.5 hr., kept overnight at 0°, and filtered, the filtrate evaporated in vacuo, the residual oil dissolved in Me2CO, and the solution diluted with Et2O to turbidity and cooled to 0° gave 11.6 g. guanidinium **salt** of XVI, m. 136° (EtOH-Et2O). (p-O2NC6H4O)2P(O)N:C(SMe)NH2 (4.4 g.) in 90 cc. EtOH, 1.3 g. HgO, 0.6 g. Na2CO3, and 20 cc. H2O shaken 2 hrs. at 60°, treated with fresh HgO, refluxed, cooled, and filtered, the filtrate evaporated, and the residue dissolved in warm EtOH and diluted with Me2CO and Et2O yielded 3.82 g. XIV, m. 218° (decomposition). XVIII (4.4 g.) in MeOH hydrogenated over 5% Pd-C, filtered, and evaporated, and the residue dissolved in Me2CO and diluted with a little H2O yielded 3.25 g. (PhO)2P(O)N:C(NH2)NHCH2CO2H (XX), m. 144° (aqueous EtOH). XIX (4.33 g.) hydrogenated in the usual manner yielded 3.28 g. (PhO)2P(O)N:C(NH2)NMeCH2CO2H (XXI), m. 140-1° (aqueous MeOH). XXI (1.8 g.) in MeOH hydrogenated over PtO2, filtered, and evaporated in vacuo, the residue treated with Me2CO, the hygroscopic precipitate dissolved in a little H2O, digested with CaCO3, filtered, and diluted with EtOH, and the precipitate filtered off and dried over H2SO4 in vacuo yielded 1.0 g. Ca **salt** of IV; the solution digested with CaCO3 treated with CaCl2, basified weakly with NaOH, and diluted with EtOH also gave the Ca **salt** of IV, Rf 0.28 (6:3:1 PrOH-NH4OH-H2O); it showed upon titration with NaOH buffer maximum at pH 2.7 and 4.5. Hydrogenated XXI neutralized with NaOH and diluted with EtOH gave 47% Na **salt** of IV.4H2O, needles. XX (1.75 g.) in MeOH hydrogenated over PtO2 and filtered, the residue digested with H2O, and the aqueous extract diluted with Me2CO gave V, m. 150°; the filter residue from a similar run digested with 0.4 g. NaOH in 25 cc. H2O and filtered, and the filtrate diluted with EtOH gave 1.17 g. Na **salt** of V.3H2O. V dissolved in aqueous cyclohexylamine and diluted with Me2CO gave 90% cyclohexylamine **salt** of V. The filter residue from a similar run digested with CaCO3, filtered, and diluted with EtOH gave the Ca **salt** of V.3H2O.

L11 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1927:7733 CAPLUS
DN 21:7733
OREF 21:949h-i,950a-e
TI The combustibility of foods and their degradation products
AU Kerp, W.
SO Arb. Reichsgesundh. (1926), 57, 545-72
DT Journal
LA Unavailable
AB A comparative investigation of the combustibility of nutritive substances and their biol. important degradation products. The combustibility is expressed by the speed at which the C content could be converted into CO2, the same oxidizing agent being used for all substances, and is calculated in % of the total amount obtainable. An apparatus was constructed which permitted the

control of the liberated CO_2 at optional time intervals. A mixture of 30% H_2O_2 and concentrated H_2SO_4 was used as the oxidizing agent (cf. C. A. 16, 1196). The following carbohydrates were investigated: arabinose, dextrose, levulose, sucrose, lactose, raffinose, starch, cellulose and inulin. All were characterized by a rapid combustion. The total CO_2 from 0.15 g. substance was liberated in 35-50 min. The oxidation started at 75-90°, increased rapidly to 100-10°, and reached 120-30° at the end. It is assumed that the di-, tri- and polysaccharides were subject to a rapid hydrolysis into monosaccharides and oxidized as such. The following fats, fatty acids and degradation and oxidation products, resp., were investigated: pressed tallow(I), cottonseed oil(II), glycerol(III), caproic, caprylic, capric, palmitic, stearic, oleic, formic (Na **salt**)(IV), acetic (Na **salt**) (V), propionic(VI), oxalic(VII), succinic(VIII), glycolic(IX), lactic(X), dihydroxystearic, and for comparison malic(XI), tartaric(XII) and citric acids(XIII). The combustion of fats and fatty acids started at, about 115°, and the temperature had finally to be increased to 150° with an extra addition of oxidizing agent. I, II and the fatty acids, except IV and V, were almost equal in combustibility. IV was rapidly oxidized and approached the carbohydrates in this respect. V was very resistant, about 65% being oxidized in 5 hrs. against 93.9% on an average for fats and fatty acids. Of the **dicarboxylic** acids VII was equal in combustibility to IV, while VIII showed the fatty acid type. III was oxidized more slowly than the carbohydrates, but more rapidly than the fatty acids. The hydroxy acids IX, XI XII and XIII were easily oxidized. X was an exception and about equal to VI. The following proteins and degradation products, resp., were investigated: casein(XIV), egg albumin(XV), glycocoll(XVI), alanine, α-aminobutyric and α- and δ-aminovaleric acids; leucine, aspartic acid(XVII), asparagine(XVIII), tyrosine(XIX), phenylalanine(XX), creatine(XXI), creatinine(XXII), urea(XXIII) and barbituric(XXIV) and uric acids(XXV); cystine(XXVI) and benzoic (XXVII), salicylic(XXVIII) and o-, m- and p-aminobenzoic acids(XXIX). The Ncompds. were very. resistant to oxidation, except that XXIX. XIV and XV reached about 50% in 2 hrs. The combustibility of the amino acids increased with the number of C atoms. It is concluded that the NH_2 group exerts a protective action against oxidation, which is strongest at the vicinal C atoms. A diagram showing this is presented. The protective action of the NH_2 group was also apparent with XVIII, XXI, XXII, XXIII and XXVI, XXIV and XXV were considerably more rapidly oxidized because of the easy destruction of the malonic acid in the one case and the mesoxalic acid residue in the other. XIX and XX exhibited a similar action, inasmuch as here the Ph group was the easily oxidized part. This was proved by the ready combustion of XXVII, XXVIII and XXIX. A comparison of V and VIII with the corresponding hydroxy and amino derivs. shows typical examples of the increase in combustibility brought about by the entry of one OH group in the mol. (IX or XI and X11), while the entry of one NH_2 group results in extremely resistant compds. (XVI or XVII). Tables and diagrams showing the progressive combustibility in all expts. are presented.